

# Michigan Department of Transportation & Michigan Department of Natural Resources

## Partnership for Asset Management

May 10, 2006



# Introductions

Robert A. Ranck, Jr., P.E.  
MDOT: Bay Region  
Bay City TSC Manager

Bruce Watkins, P.E.  
MDNR: Land & Facilities  
Engineering Unit Manager  
Design & Construction



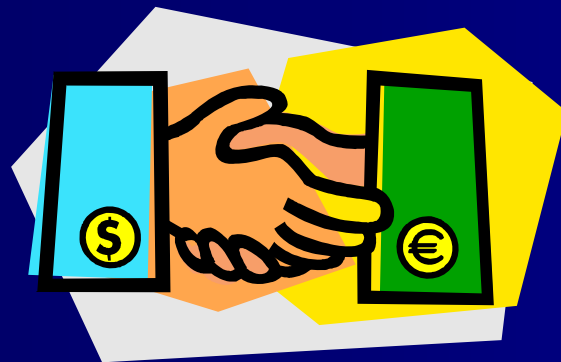
# Agenda

- Mission (how we got here) (Start from scratch)
- Field Evaluation
- Inventory Effort
- Strategy Evaluation
- Implementation
- Next Steps



# Our Mission

Develop a State Park Road Strategy and Long Term Plan



## ■ MDOT Representatives:

- John Polasek: SW Region Systems Manager
- Tom Tellier: Grand Region Bridge Engineer
- Robert Ranck, Jr.: Bay City TSC Manager

## ■ MDNR Representatives:

- Bruce Watkins: Design Supervisor
- Chris Bennett: SE Regional Manager

# Field Evaluation

- Reviewed Approx. 10 State Parks in 2 day period
- Explored Different Fix Applications
  - R&R
  - CPM
  - Maintenance
- Realized Different than MDOT
  - Lower Traffic Loadings
  - Seasonal Limitations
- Unknown Inventory of Assets



# Field Evaluation Results

- Past Asset Management
  - Inconsistent Preventive Maintenance
  - No Consistent Funding Source
  - Conflict between Roads versus Other Assets
  - No Project Selection Strategy







Sleepy Hollow State Park – Pavement Caution Sign





Sleepy Hollow State Park –  
Pavement Caution Signs Warn  
for this Section of Rough Road





Bay City Recreation Area – Ranger Office Entrance





Bay City Recreation Area –  
Campground Access



# Inventory Effort

- Inventory Road System
  - Write M.O.U. to have MDOT Manage Inventory of Harbors, Boat Access Sites & State Park Roads
- Develop Strategies Based on Inventory Data
  - Use Software to Manage Long Term Strategy
  - Use Data to Set Goals



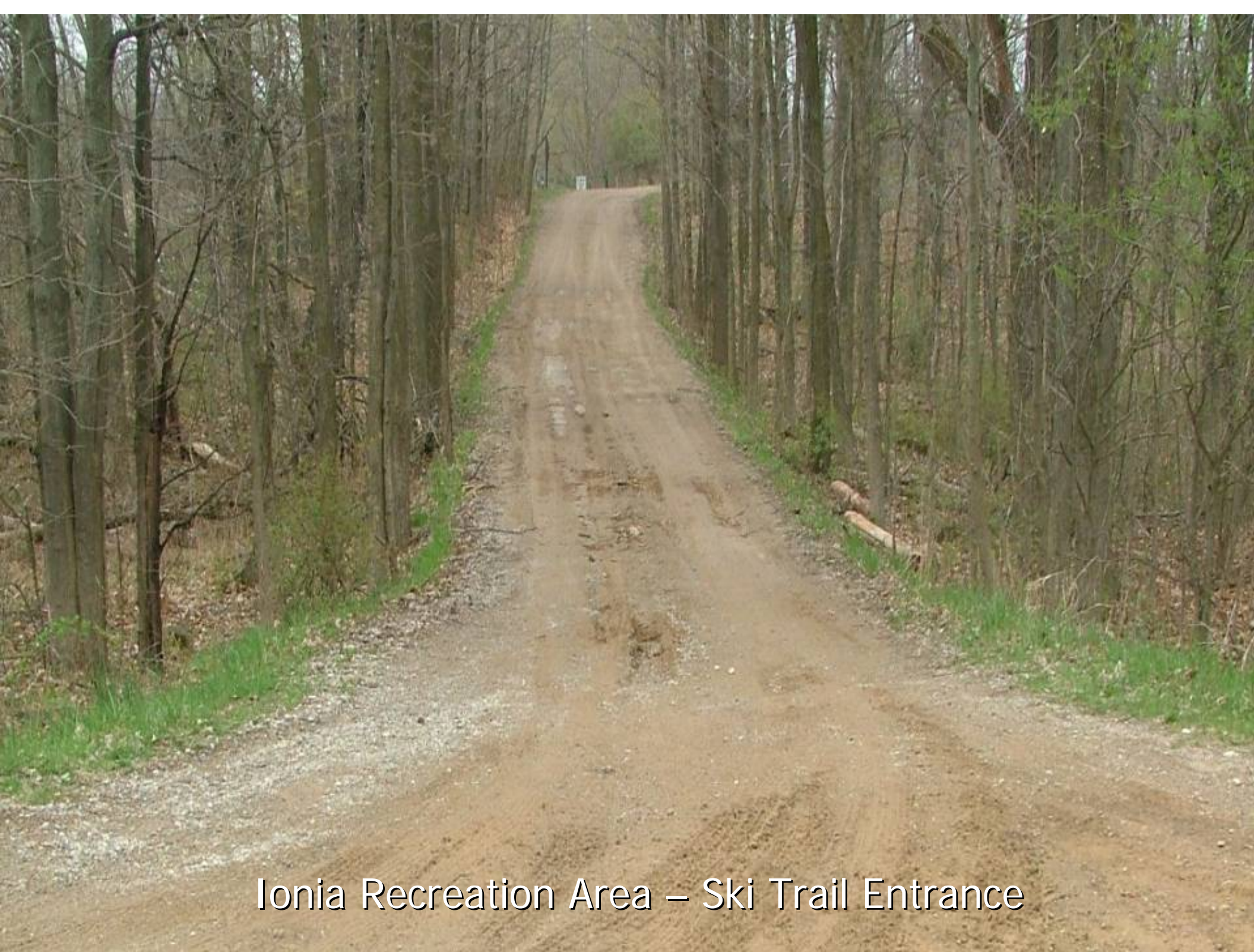
# Inventory Efforts

- Gravel
- Concrete
- HMA



Island Lake Recreation Area – Spring Mill Pond Parking





Ionia Recreation Area – Ski Trail Entrance





Sleepy Hollow State Park –  
Boat Launch





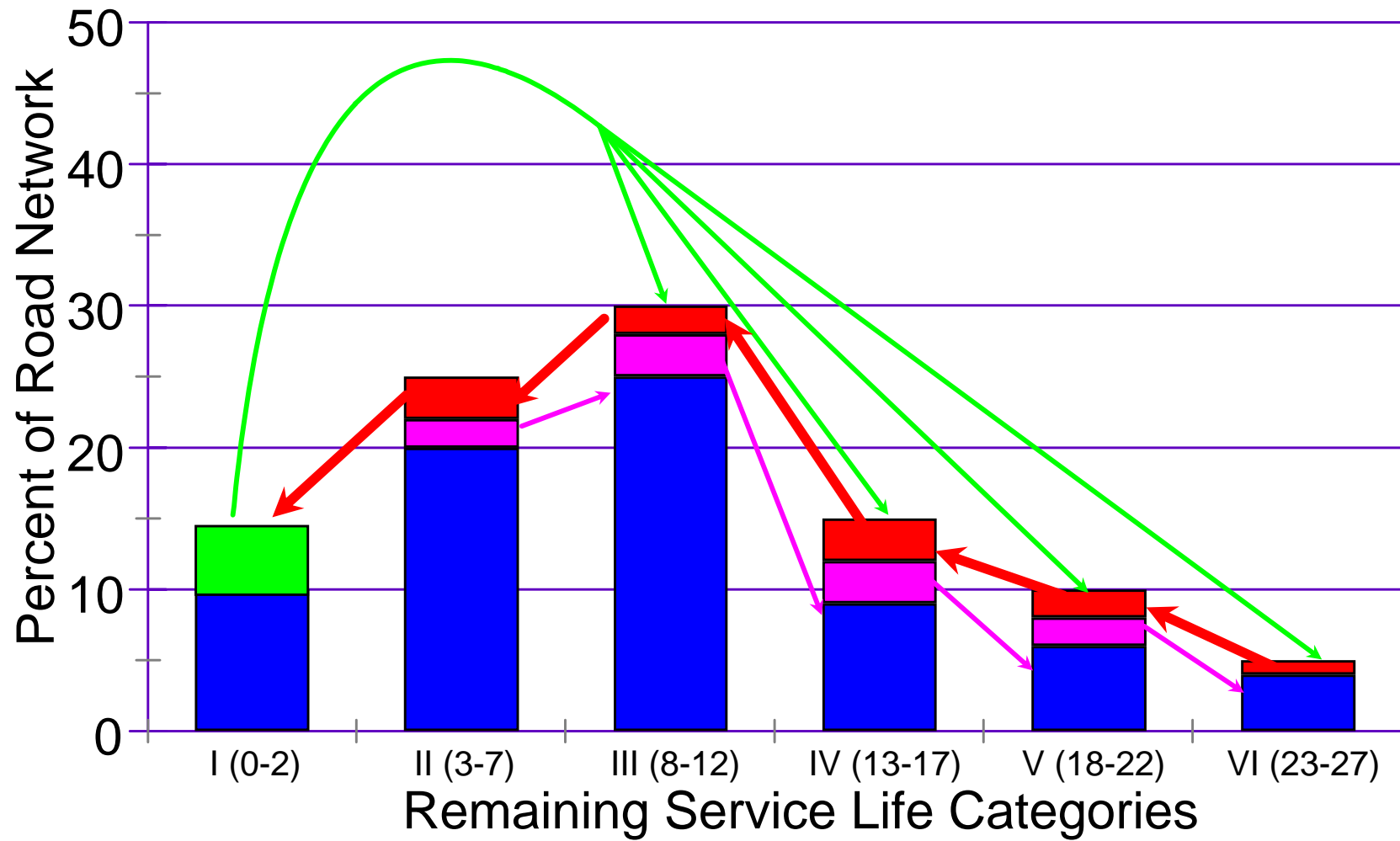
Highland Recreation Area – Teeple Lake Parking

# Strategy Evaluation

## Goals:

- Develop Short Term Strategy
  - Projecting Pavement Curves
  - Develop Initial Strategy to Meet Goals
  - Establish Funding Source to Achieve Goal
- Develop Long Term Strategy
  - Features (main road, parking, camping)
  - Additional PASER Ratings Each Year
  - Use Final CGI Data to Manage Inventory Features Using Software

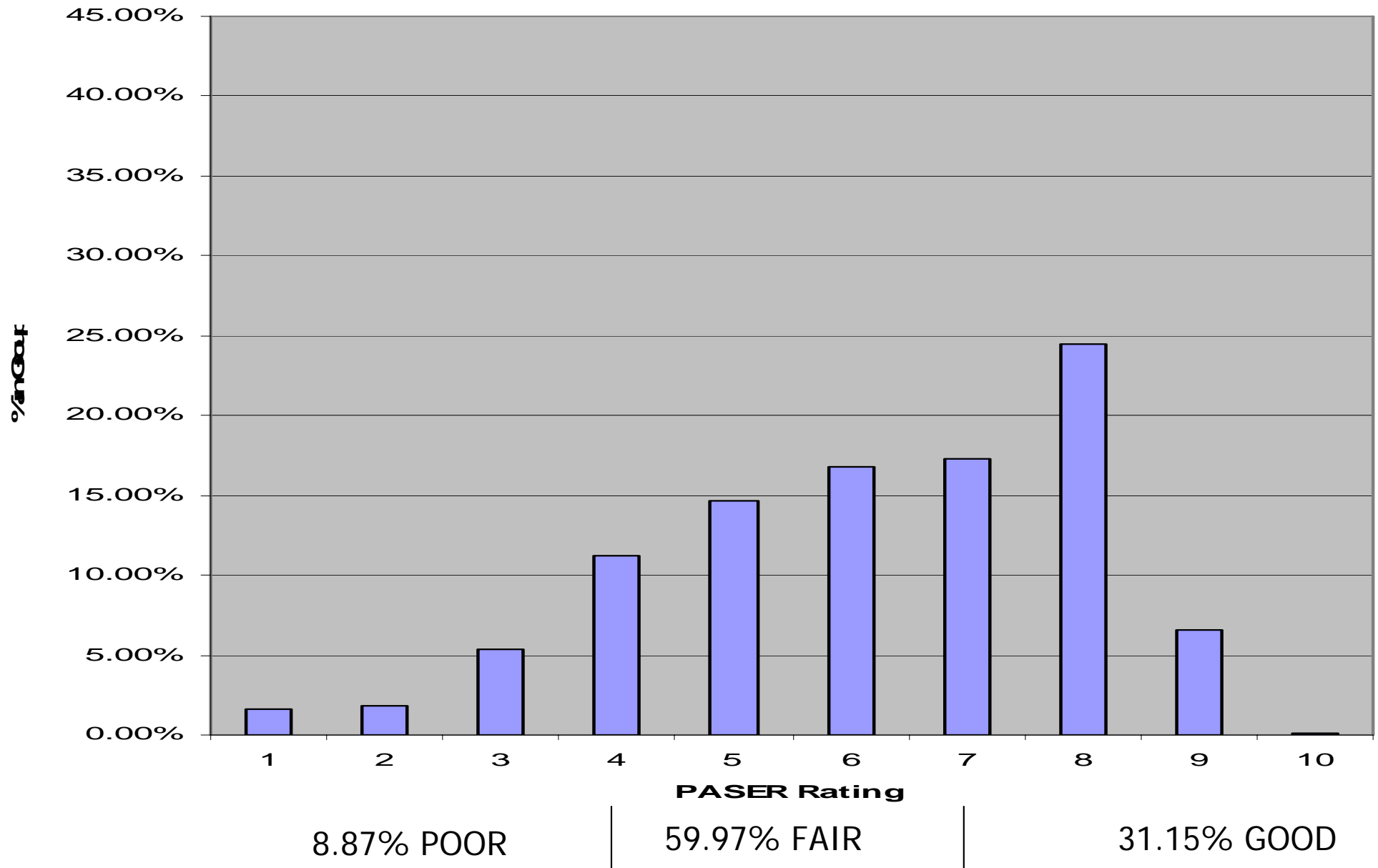
# RQFS





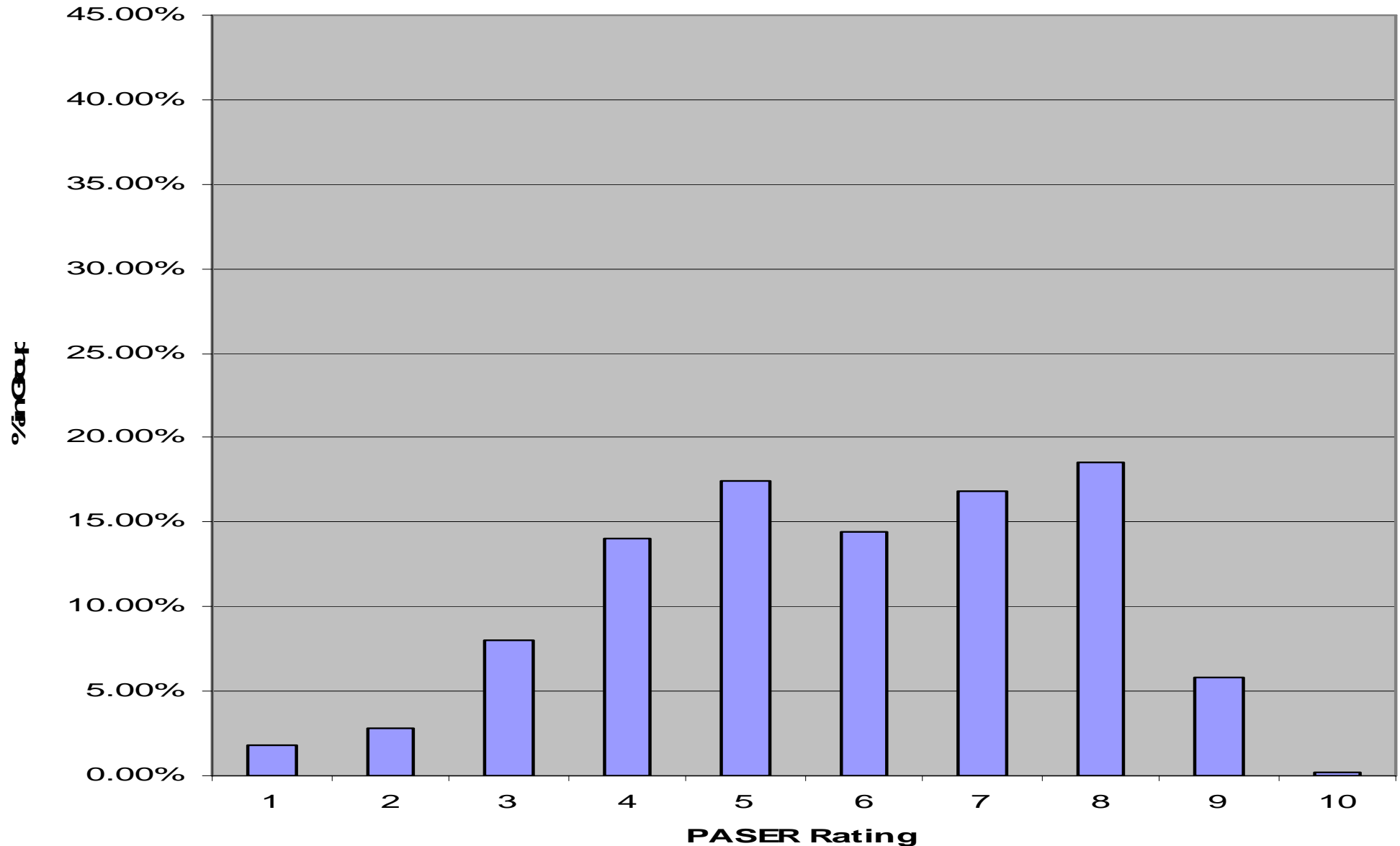
# Strategy Results (Past)

## 2004 MDNR State Parks - Asphalt



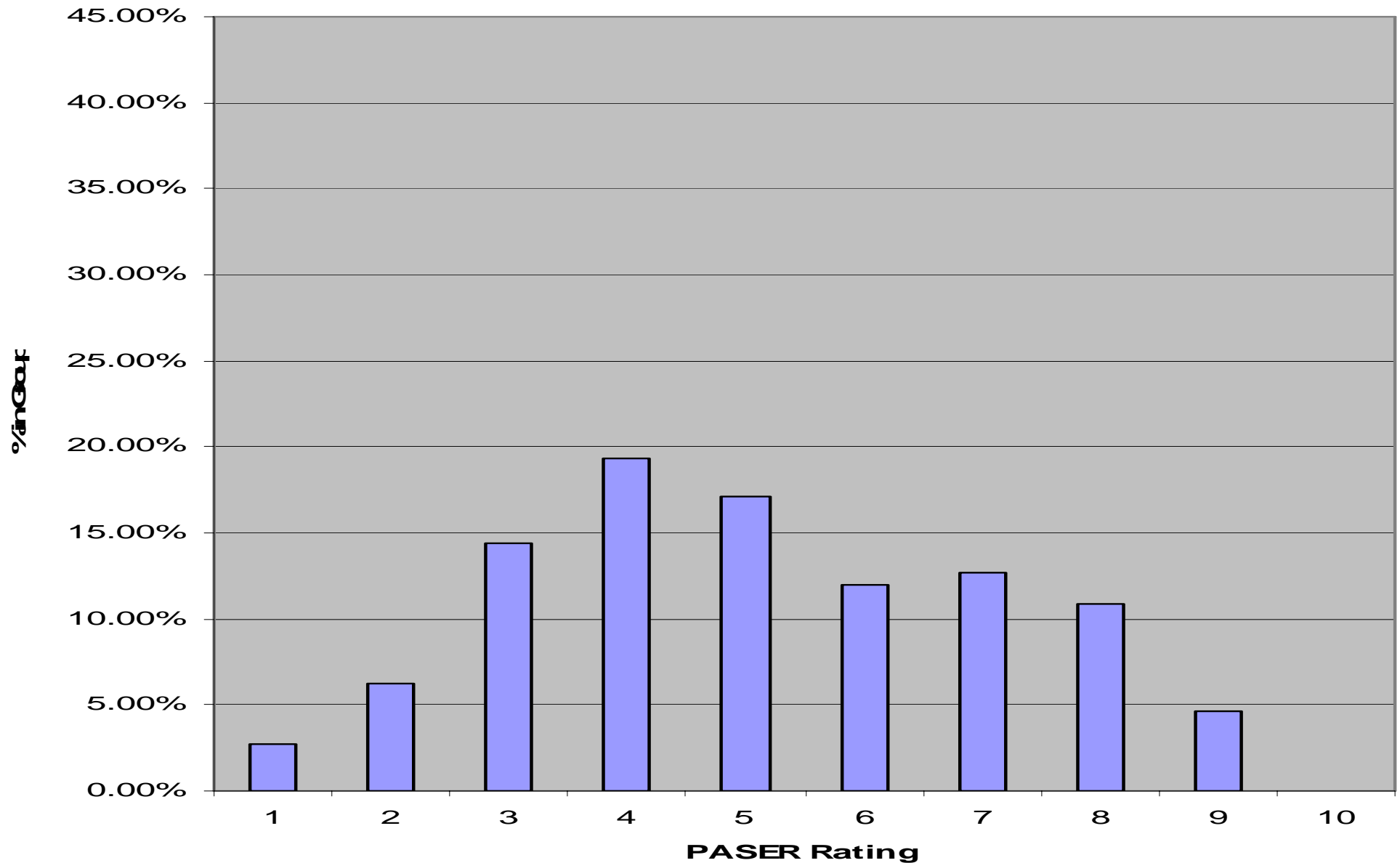
# Strategy Results (Past)

## 2005 MDNR State Parks - Asphalt



# Strategy Results (Past)

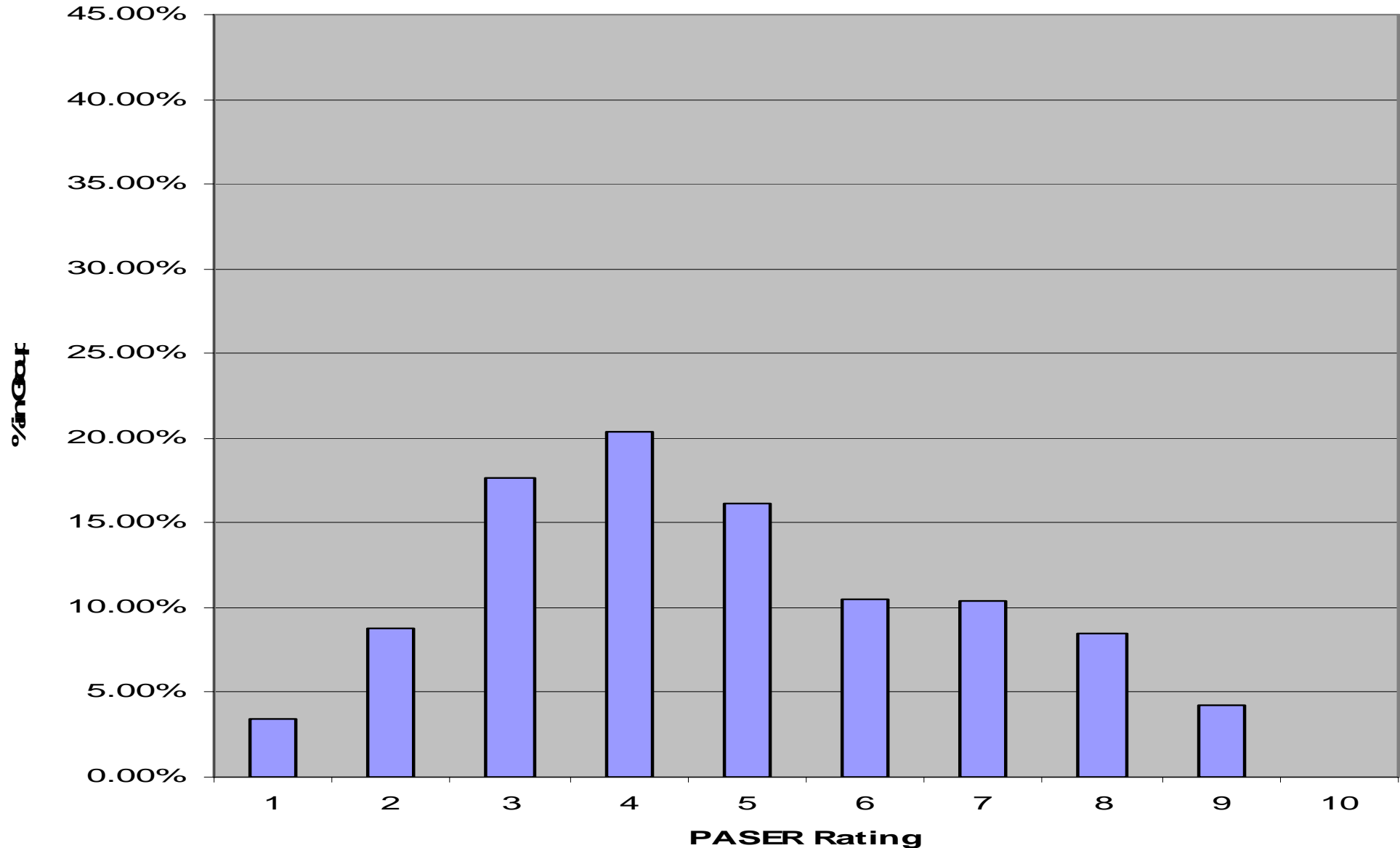
## 2006 MDNR State Parks - Asphalt





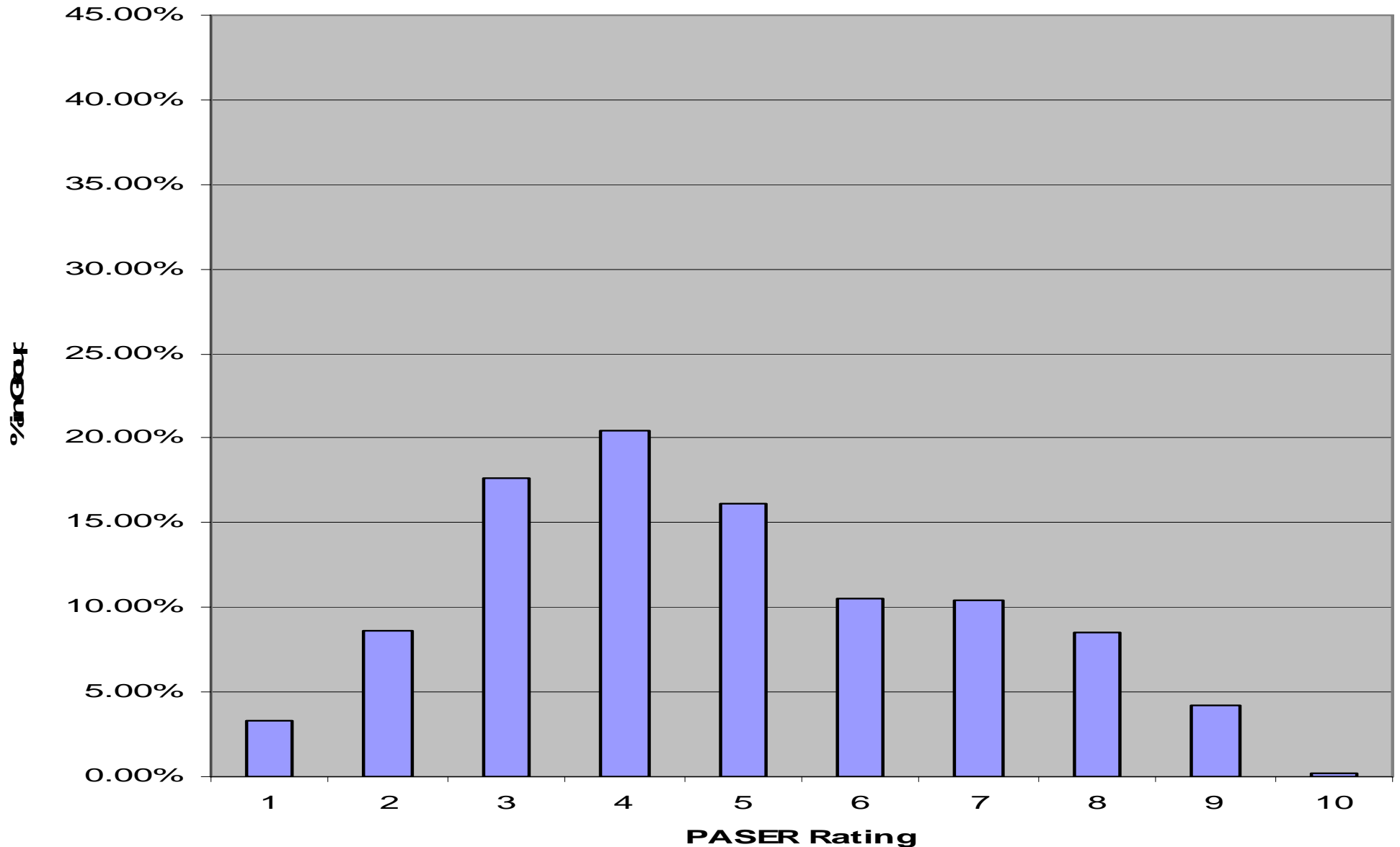
# Strategy Results (Past)

## 2007 MDNR State Parks - Asphalt



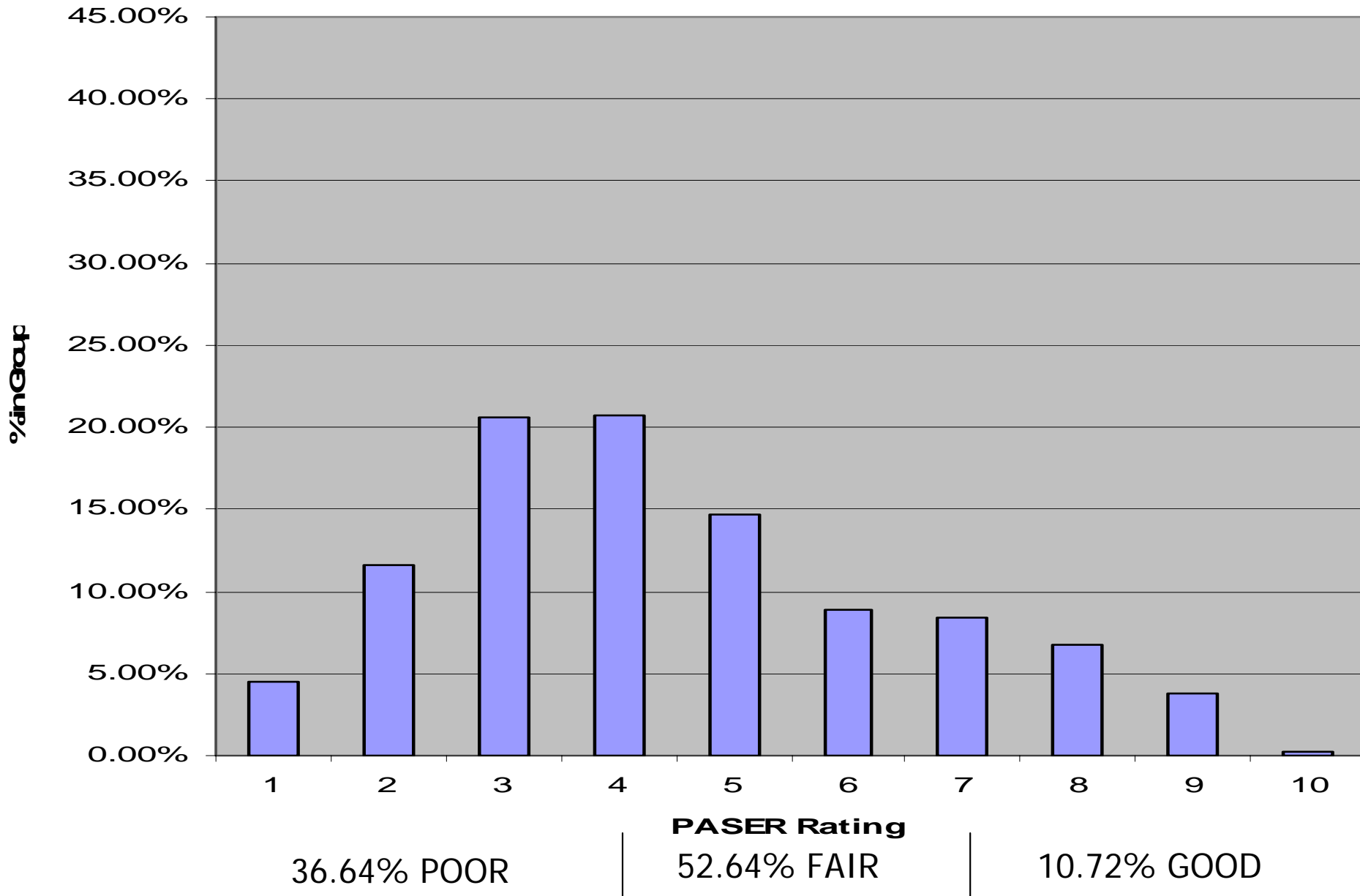
# Strategy Results (Past)

## 2008 MDNR State Parks - Asphalt



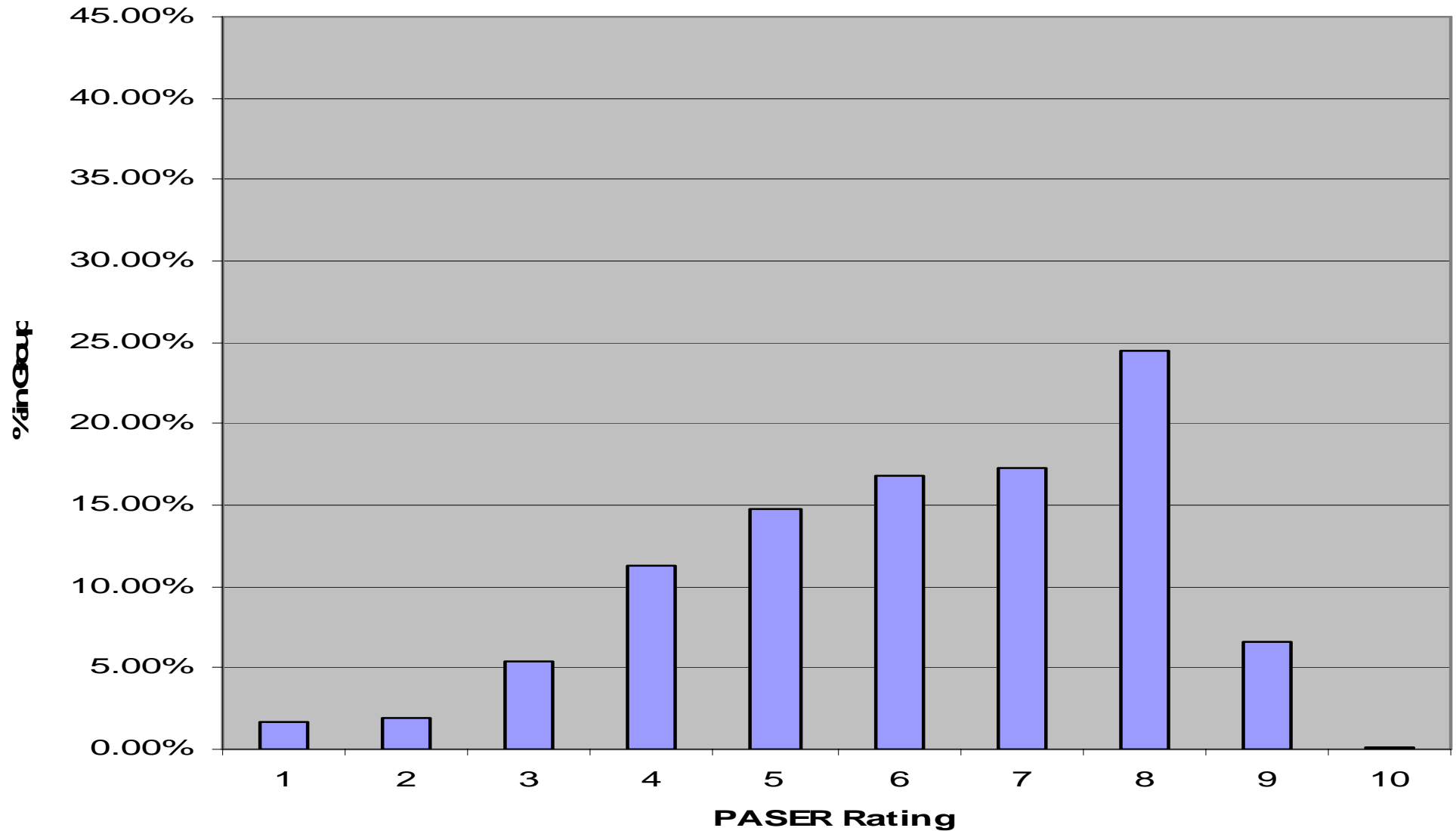
# Strategy Results (Past)

## 2009 MDNR State Parks - Asphalt



# Strategy Results (Future)

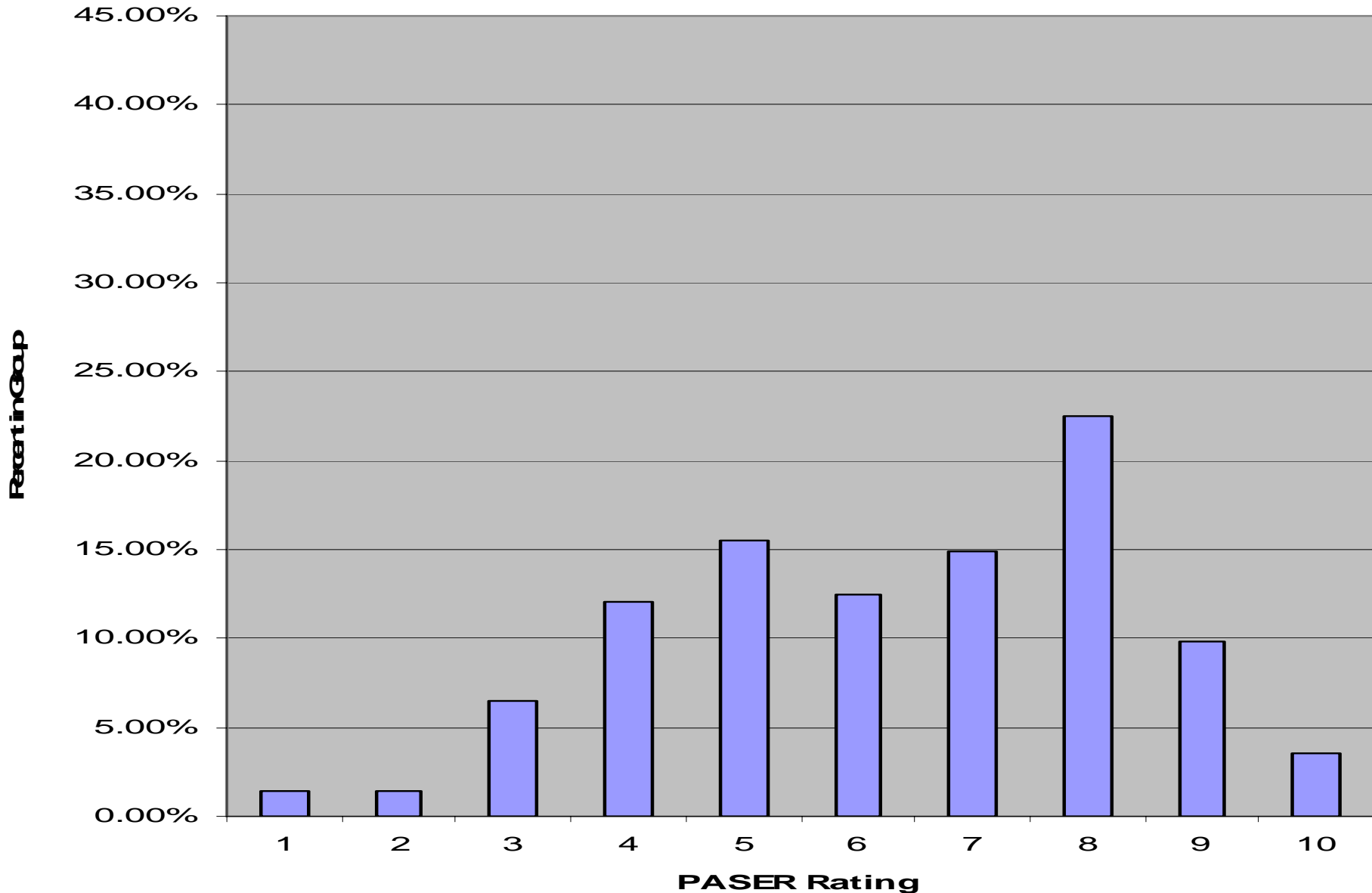
## 2004 MDNR State Parks - Asphalt





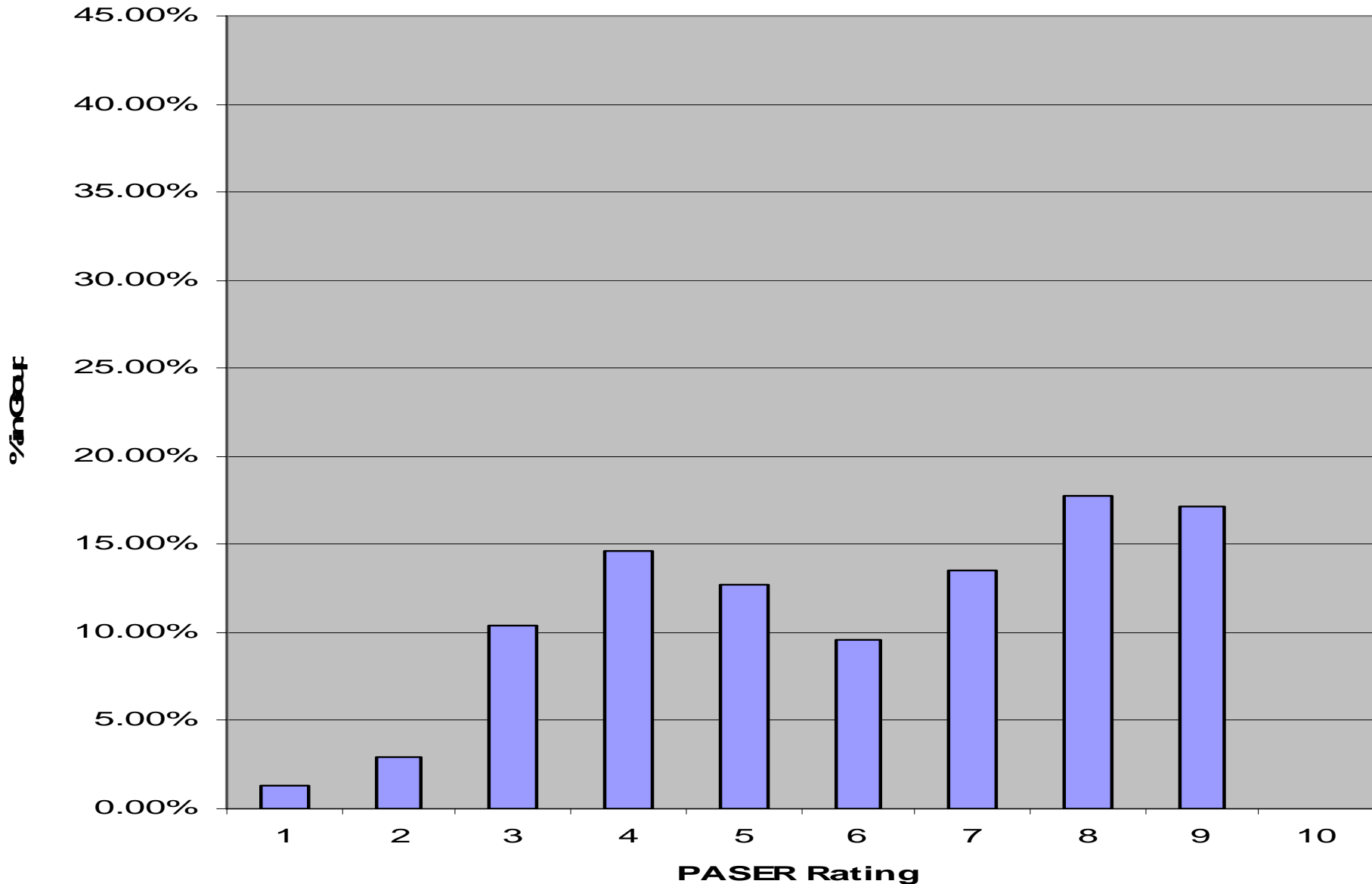
# Strategy Results (Future)

## 2005 MDNR State Parks - Asphalt



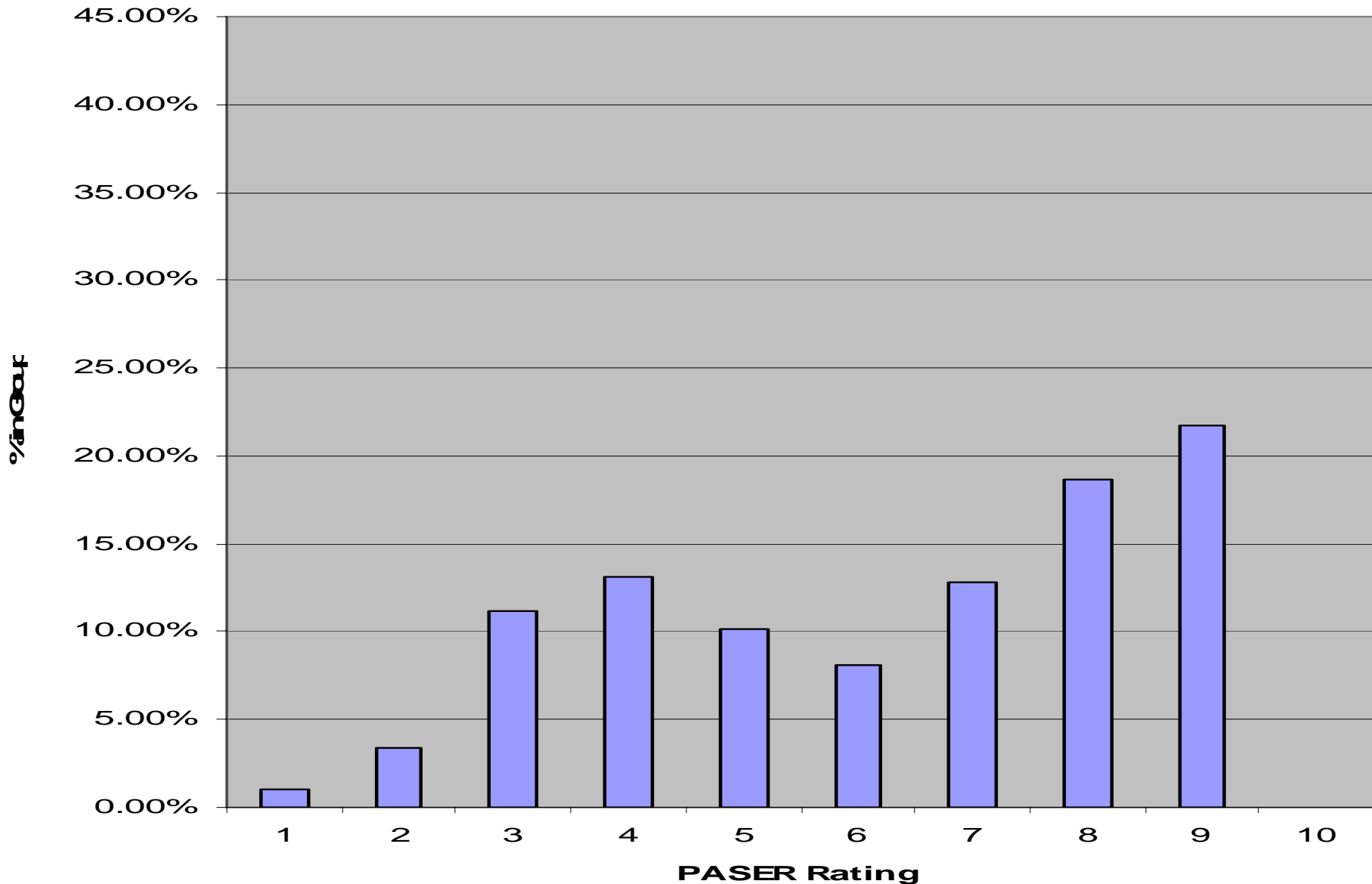
# Strategy Results (Future)

## 2006 MDNR State Parks - Asphalt



# Strategy Results (Future)

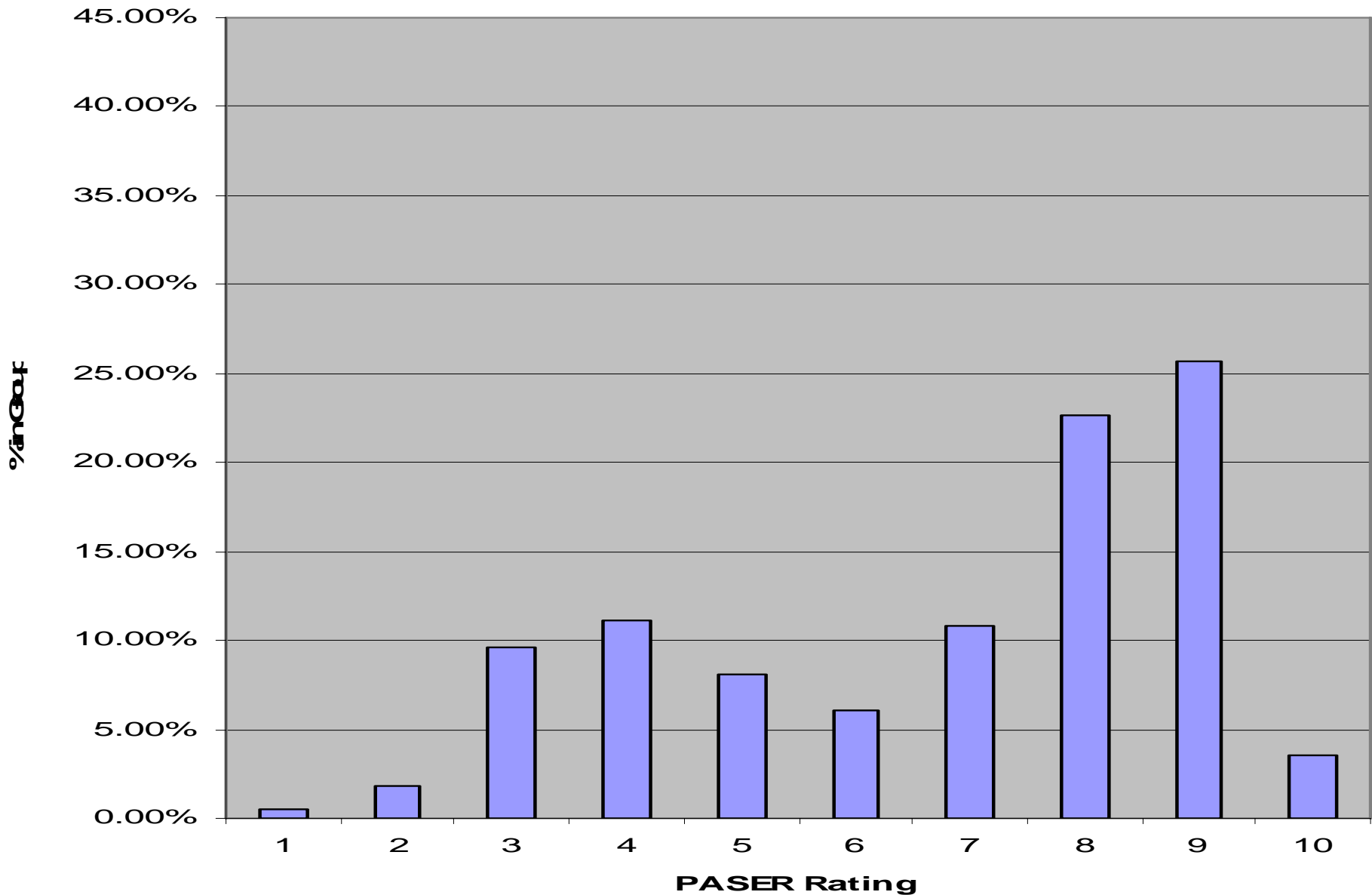
## 2007 MDNR State Parks - Asphalt





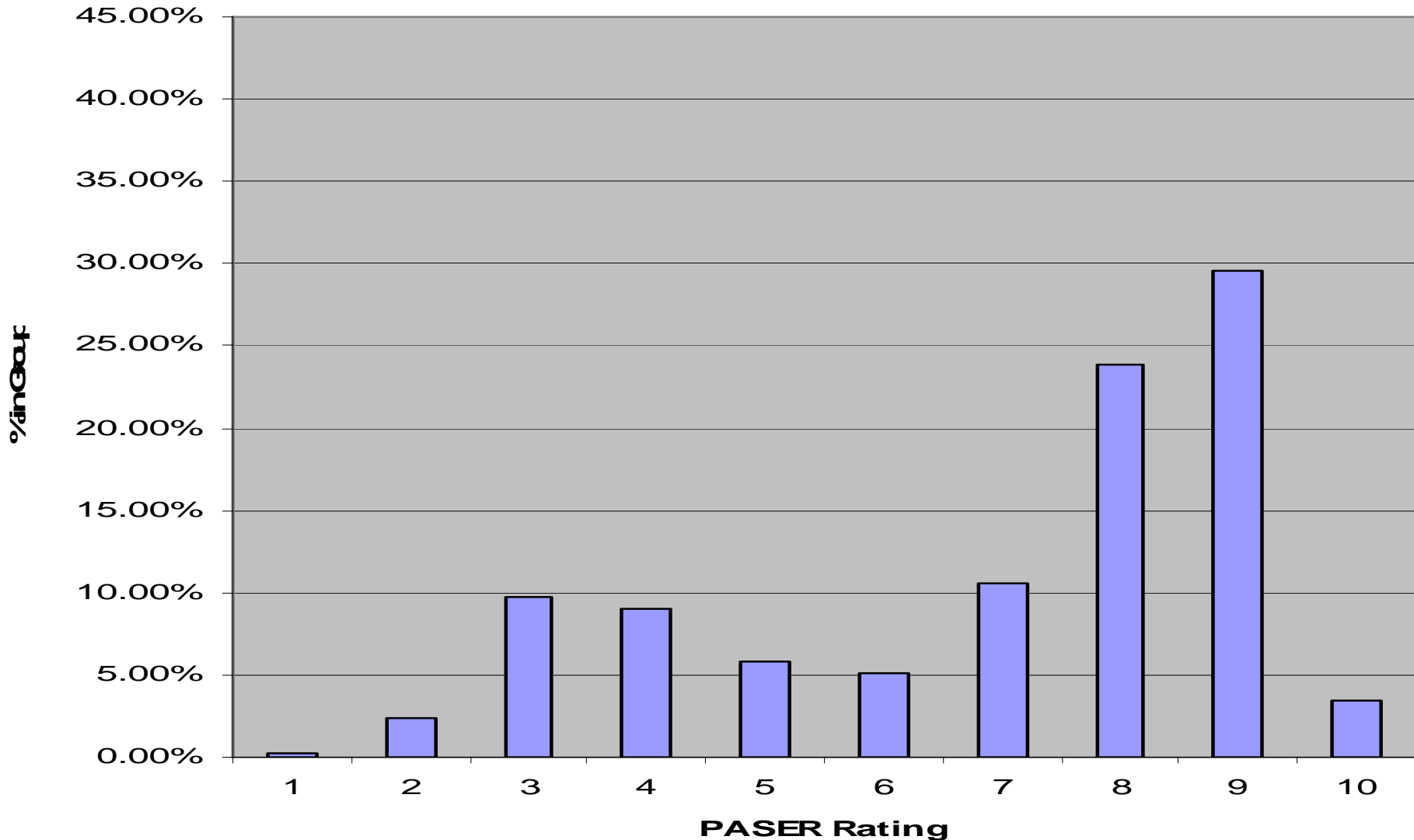
# Strategy Results (Future)

## 2008 MDNR State Parks - Asphalt



# Strategy Results (Future)

## 2009 MDNR State Parks - Asphalt



# Strategy Summary

PASER Rating	% Improved	Miles Improved
1	0.5 %	2.68
2	1.5 %	8.05
3	1.5 %	8.05
4	2.0 %	10.73
5	2.0 %	10.73
6	2.0 %	10.73
7	2.0 %	10.73
8	2.0 %	10.73
9	0 %	0
10	0 %	0
*2004 HMA		Total Miles = 537



# Strategy Summary

Improved Pavement Type	Cost per Year
HMA	\$4,250,000
Concrete	\$100,000
Gravel	\$520,000

\*2004 dollars

# Implementation

- Setting Priorities within Each Category
- Project Selections Made Based on Set Criteria:
  - Main Road
  - Parking Lots
  - Usage
  - Population
- Apply Fixes to Each Candidate Picked

# Matrix of Fixes

Road Type	Fix Type	Current PASER* Rating	New PASER* Rating
Gravel	Routine Grading & Spot Rprs	6	10
Gravel	New Gravel Road	2	10
HMA	Crack Treatment	7	8
HMA	Micro-Surface	5	8
HMA	HMA Overlay	3-4	9
HMA	Full Depth HMA Pvt	1-2	10

\*PASER 1-3 (Poor), 4-7 (Fair), 8-10 (Good)





Brighton Recreation Area – South Campground Area





Highland Recreation Area – Horse Campground Area





Highland Recreation Area –  
Boat Launch





Highland Recreation Area –  
Teeple Lake Beach Access





Sleepy Hollow State Park – Exterior Parking Lot Entrance





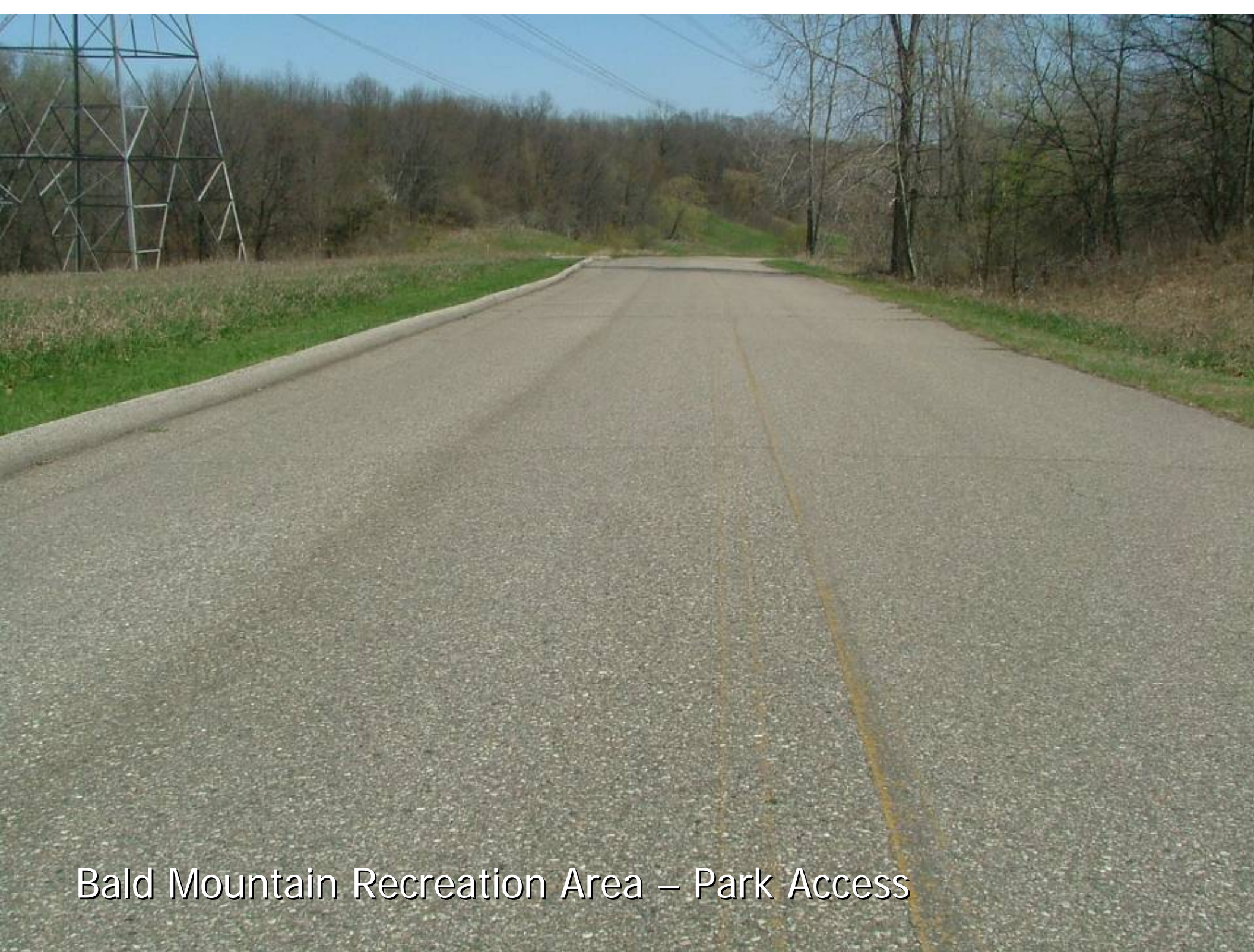
Sleepy Hollow State Park – Lake Ovid Beach Parking





Highland Recreation Area – Park Access





Bald Mountain Recreation Area – Park Access

# Next Steps

- Data Reduction into Framework for 2006
- More PASER Ratings Yearly (MDOT, MDNR or Contract)
- Use Pavement Management Software to Manage Inventories, Strategies, Costs & Attributes
- Educate Key MDNR Staff to Manage their Roadway Network
- Approval for Annual MDNR Road Budget Commitment

# Future Steps

- Maintenance Budgets in the Field Offices
- Look at Future Project Partnering in:
  - Scoping
  - Design
  - Construction and Maintenance Practices
  - PASER Ratings
- Change Culture and Thought Process



# Questions

